

Title:

Pictures That Don't Lie: An Animal Geneticist's View on the Power of Diagnostic Imaging

Lecture:

Often overlooked – Chihuahuas, Great Danes, Collies, French bulldogs, wolves, and village dogs are all members of the same species, *Canis familiaris*. The basis of this incredible physical diversity is mostly genetic. Yet to date, the actual genetic changes – mutations – that differentiate one dog from another are largely undefined. In this lecture, I will describe how diagnostic imaging has empowered our ability to quantify bones shapes and guide our genetic mapping efforts to uncover the changes in DNA that explain the good and bad of canine skeletal diversity.